

### How to Order

#### Q-Line

- Thermal Magnetic Circuit Breakers
- Molded-Case Switches

The product number as shown in the following pages includes the complete breaker or switch. TQD and TJD breakers are complete with Cu/Al line and load lugs.

#### E 150 Line

- Thermal Magnetic Circuit Breakers
- Magnetic Circuit Breakers
- Molded Case Switches

The product numbers as shown in the following pages include the complete breaker or switch. All devices listed come with Cu/Al line and load lugs. If line lugs are not required on a breaker, eliminate "WL" from product number; for molded case switches see page 6-3. Unless otherwise noted, all circuit breakers are UL listed in File E-11592. Molded case switches are UL listed in File E-57546.

#### J 600 Line

- Thermal Magnetic Circuit Breakers
- Magnetic Circuit Breakers
- Molded Case Switches

These breakers are available with either noninterchangeable trip (designated Type TJJ) or interchangeable trip (designated Type TJK and THJK). Type TJJ product numbers include frame, trip, Cu/Al line, and load lugs factory assembled. If line lugs are not required on the breaker, eliminate "WL" from product number, and subtract price of line lugs from price of complete breaker.

TJK breakers are available in two frames, 400 ampere frame (125 to 400 amperes) and 600 ampere frame (250 to 600 amperes). Trip units are not interchangeable between frames.

"Complete Circuit Breaker" price includes frame, trip unit, Cu/Al line, and load lugs. Unit will be shipped unassembled unless order specifies "must be factory assembled." If line lugs are not required, eliminate "WL" from product number and subtract price of line lugs from price of complete breaker.

To order the frame, trip, and lugs separately, select the required components from table. Magnetic breakers must be ordered as components. A complete breaker consists of frame, trip, and one line and one load lug per pole.

Price of ordering "Complete Circuit Breaker" vs. frame, trip, and line and load lugs separately is the same.

Molded case switches can also be ordered as complete units (designated Type TJK---Y) or as separate components. They are UL listed only as complete units. To indicate required lugs, see page 6-3.

Unless otherwise noted, all circuit breakers are UL listed in File E-11592. Molded case switches are UL listed in File E-57546.



Q-Line Thermal Magnetic Circuit Breakers  
and Molded-Case Switches

#### Tri-Break™ Line

- Integrally Fused Thermal Magnetic Circuit Breakers
- Integrally Fused Magnetic Circuit Breakers
- Integrally Fused Molded Case Switches

These breakers are available in three types. Type TB1 (15-100 amperes) product numbers include frame, trip, line and load lugs, and current limiters all factory assembled. TB6 (300 to 600 amperes) and TB8 (600 to 800 amperes) include frame, trip and limiters, factory assembled, but do not include line or load lugs. If line and load lugs are required, order separately. Unless otherwise noted, TB1, TB6, and TB8 breaker components are UL listed in File E-42263. Fused molded case switches are UL listed in File E-57546.

#### Mag-Break Line

- Magnetic only circuit breakers (motor circuit protectors)

These breakers are available only with noninterchangeable adjustable magnetic trip, in frame Types E, F, J, K, and Tri-Break™. All breakers are shipped factory assembled, complete with Cu/Al line and load lugs.

All magnetic only circuit breakers and limiters are UL Component Recognized in Files E-11592 and E-66390, respectively, unless otherwise noted.



### Spectra™ RMS

#### —Circuit Breakers

Determine the required breaker frame, IC rating, and load requirements. Select frame, trip unit (rating plug), and lug, if required, product numbers from the tables on pages 6-45 to 6-53. For Spectra™ breakers with *microEntelliGuard™* Trip Units refer to pages 6-54 through 6-61. Select field-mounted internal accessory product numbers, if required, on pages 6-67 and 6-68. Select field-mounted external accessory product numbers, if required, on pages 6-95 through 6-106 and pages 6-62 to 6-66 for Spectra™ breakers with *microEntelliGuard™* Trip Units. Order as separate items.

#### —Mag-Break Motor Circuit Protectors

Determine the required frame and ampere requirements. Select frame, trip unit (rating plug), and lug, if required, product numbers from the table on pages 6-91 through 6-92. Select accessories as noted above for circuit breakers. The same accessories are used with both circuit breakers and motor circuit protectors. Order as separate items.

#### —Molded Case Switches

Determine the required frame and ampere requirements. Select frame and lug, if required, product numbers from the table on page 6-90. Rating plugs are not used. Select accessories as noted above for circuit breakers. Internal accessories do not require dummy trips. The same accessories are used with both circuit breakers and molded case switches. Order as separate items.

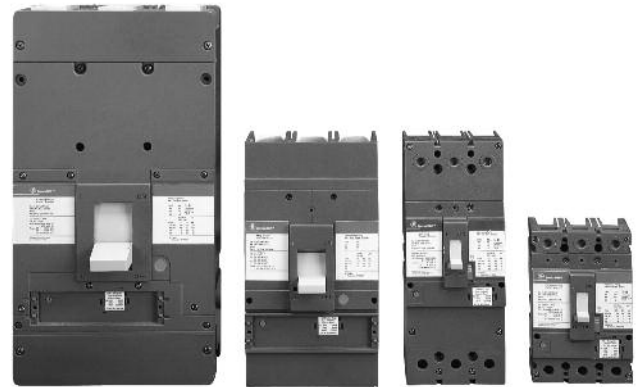
Unless otherwise noted, all circuit breakers are UL listed in File E-11592. Molded case switches are UL listed in File E-57546. Field-Installable Internal Accessories are UL listed in File E-57253. Distribution Cable Accessories for *microEntelliGuard™* Trip Units are UL listed in File E-57253.

### Accessories

Order accessories from the appropriate table:

- Thermal Magnetic Circuit Breakers, Magnetic Circuit Breakers, and Molded Case Switches<sup>1</sup>—pages 6-39 to 6-44 and 6-94 to 6-106.
- Spectra™ RMS Breakers—pages 6-66 to 6-67 and 6-94 to 6-106.
- Spectra™ RMS Breakers with *microEntelliGuard™* Trip Units—pages 6-62 to 6-68, and 6-94 to 6-106.

<sup>1</sup>Installation of accessories in molded case switches requires dummy trip; see page 6-44 for information. Dummy trip not required for Tri-Break™ or Q-Line molded case switches.



**Spectra Circuit Breakers  
and Molded Case Switches**

### Molded Case Circuit Breaker and Switch Terminal Configuration Code

Order standard Cu/Al lugs by using suffix codes presented. Order lugs separately if special lugs are required. For optional lugs, see pages 6-103 and 6-104.

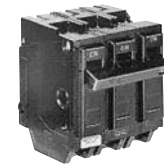
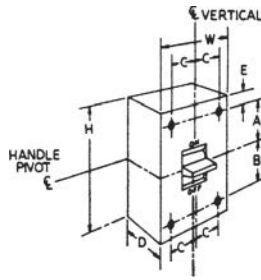
Breaker/Switch Type	Suffix				
	Blank	WL	XL	X2	LL
TQD/TJD	Load Lugs Only	Line and Load Lugs	—	Line Lugs Only	No Lugs
Molded Case Breakers, Thermal Magnetic	Load Lugs Only	Line and Load Lugs	—	Load Lugs Only	No Lugs
Molded Case Switch	Line and Load Lugs	—	No Lugs	Line Lugs Only	Load Lugs Only
Spectra RMS™ Breakers	No Lugs			Order Lugs Separately	
Mine Duty™ Breakers	No Lugs			Order Lugs Separately	
Mag-Break™ Breakers	Line and Load Lugs	—	—	—	—



## Quick Reference Guide

Ratings do not apply to molded case switches.

The interruption ratings and voltages shown in the table are maximum ratings. A circuit breaker of the type given in the left-hand column may be applied at the given circuit voltage in any electrical distribution system where the available fault current at the load terminals of the breaker does not exceed the value in the table. That circuit breaker type may also be applied at intermediate values of circuit voltage provided the available fault current at the load terminals of the breaker does not exceed the value in the table for the higher value of voltage.



THQL 32015

## Q-Line (UL file E-11592; Fixed Thermal Magnetic Trip Unit)

Circuit Breaker Type	Ampere Rating	No. Poles	Maximum Voltage Rating		UL Listed Interrupting Ratings—rms Symmetrical kA								Dimensions (in.)							Std. Pack					
					Vac						Vdc		H	W	D	A	B	C	E						
					ac	dc	120	120/240	240	277	480	600									125	250			
TQ	15-50	1	120/240	—	—	10	—	—	—	—	—	—	—	—	3	3/4	2 3/8	—	—	—	—	10			
	15-60	2	120/240	—	—	10	—	—	—	—	—	—	—	—	3	1 1/2	2 3/8	—	—	—	—	5			
THQP <sup>1</sup>	15-50	1	120/240	—	—	10	—	—	—	—	—	—	—	3 9/32	1/2	2 3/8	—	—	—	—	—	—	100		
		2													1								50		
TQL/TQB/ TQC	10	1	120/240	—	—	5 <sup>2</sup>	—	—	—	—	—	—	—	3 9/32	1	2 3/8	—	—	—	—	—	—	—	50	
		2													2									25	
		3													3									15	
THQL <sup>1</sup> THQB <sup>1</sup> THQC <sup>1</sup>	15-70	1	120/240	—	—	10	—	—	—	—	—	—	3 9/32	1	2 3/8	—	—	—	—	—	—	—	—	50	
	15-125	2												2										25	
	15-100	3												3										15	
THHQB <sup>1</sup> THHQC <sup>1</sup>	15-70	1	120/240	—	—	22	—	—	—	—	—	—	3 9/32	1	2 3/8	—	—	—	—	—	—	—	—	50	
	15-100	2												2										25	
	15-100	3												3										15	
THHQL <sup>1</sup>	15-70	1	120/240	—	—	22	—	—	—	—	—	—	3 9/32	1	2 3/8	—	—	—	—	—	—	—	—	50	
	15-125	2												2										25	
	15-100	3												3										15	
TXQL <sup>1</sup> TXQB <sup>1</sup> TXQC <sup>1</sup>	15-30	1	120/240	—	—	65	—	—	—	—	—	—	3 9/32	1	2 3/8	—	—	—	—	—	—	—	—	50	
		2												2										25	
		3												3										15	
TQD <sup>1</sup>	100-225	2	240	—	—	10	10	—	—	—	—	—	—	6 9/16	2 3/4	2 5/8	2 7/16	2 7/16	—	—	—	—	27/32	1	
	100-225	3	240			—	10								—									—	—
THQD <sup>1</sup>	100-225	2	240	—	—	22	22	—	—	—	—	—	—	6 9/16	2 3/4	2 5/8	2 7/16	2 7/16	—	—	—	—	—	27/32	1
	100-225	3	240			—	22								—										—
TJD	250-400	2	240	—	—	22	22	—	—	—	—	—	10	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	—	—	—	—	1
		3	240			—	22																		—

### CB3 Ground Fault, Equipment Ground Fault and Arc Fault (UL File E-51075; Fixed Thermal Magnetic Trip Unit)

THQL THQB THQC ...GF, GFEP	15-30	1	120	—	10	—	—	—	—	—	—	—	3 9/32	1	2 3/8	—	—	—	—	—	—	—	—	—	10
		2	120/240											—											10
THHQL THHQB ...GF	15-30	1	120	—	22	—	—	—	—	—	—	—	—	3 9/32	1	2 3/8	—	—	—	—	—	—	—	—	10
THQL THQB THQC ...AF	15-20	1	120/240	—	—	10	—	—	—	—	—	—	—	3 9/32	1	2 3/8	—	—	—	—	—	—	—	—	10
THHQL THHQB ...AF	15-20	1	120/240	—	—	22	—	—	—	—	—	—	—	3 9/32	1	2 3/8	—	—	—	—	—	—	—	—	10

<sup>1</sup> UL listed as HACR (heating, air conditioning and refrigeration).

<sup>2</sup> Not UL listed.



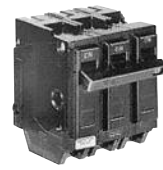
# Molded Case Circuit Breakers

## Q-Line Circuit Breakers

Plug-in Circuit Breakers  
120/240V Class

### TQL and THQL 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Interrupting Rating	Product Number
2	10		5kA	TQL22010
2	15	14-8 Cu/12-8 Al	10kA	THQL22015
2	20	14-8 Cu/12-8 Al	10kA	THQL22020
2	25	14-8 Cu/12-8 Al	10kA	THQL22025
2	30	14-8 Cu/12-8 Al	10kA	THQL22030
2	35	8-3 Cu/8-3 Al	10kA	THQL22035
2	40	8-3 Cu/8-3 Al	10kA	THQL22040
2	45	8-3 Cu/8-3 Al	10kA	THQL22045
2	50	8-3 Cu/8-3 Al	10kA	THQL22050
2	60	8-3 Cu/8-3 Al	10kA	THQL22060
2	70	6-1/0 Cu/4-1/0 Al	10kA	THQL22070
2	80	6-1/0 Cu/4-1/0 Al	10kA	THQL22080
2	90	6-1/0 Cu/4-1/0 Al	10kA	THQL22090
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQL22100
3	10		5kA	TQL32010
3	15	14-8 Cu/12-8 Al	10kA	THQL32015
3	20	14-8 Cu/12-8 Al	10kA	THQL32020
3	25	14-8 Cu/12-8 Al	10kA	THQL32025
3	30	14-8 Cu/12-8 Al	10kA	THQL32030
3	35	8-3 Cu/8-3 Al	10kA	THQL32035
3	40	8-3 Cu/8-3 Al	10kA	THQL32040
3	45	8-3 Cu/8-3 Al	10kA	THQL32045
3	50	8-3 Cu/8-3 Al	10kA	THQL32050
3	60	8-3 Cu/8-3 Al	10kA	THQL32060
3	70	6-1/0 Cu/4-1/0 Al	10kA	THQL32070
3	80	6-1/0 Cu/4-1/0 Al	10kA	THQL32080
3	90	6-1/0 Cu/4-1/0 Al	10kA	THQL32090
3	100	6-1/0 Cu/4-1/0 Al	10kA	THQL32100



THQL32015



THQL2120ST1

15-100 ampere UL Listed as HACR (heating, air conditioning and refrigeration).

### THQL 120/240 Vac, Internal Common Trip with Factory Installed Shunt

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	10kA	THQL2115ST1
2	20	14-8 Cu/12-8 Al	10kA	THQL2120ST1
2	30	14-8 Cu/12-8 Al	10kA	THQL2130ST1
2	35	8-3 Cu/8-3 Al	10kA	THQL2135ST1
2	40	8-3 Cu/8-3 Al	10kA	THQL2140ST1
2	45	8-3 Cu/8-3 Al	10kA	THQL2145ST1
2	50	8-3 Cu/8-3 Al	10kA	THQL2150ST1
2	60	8-3 Cu/8-3 Al	10kA	THQL2160ST1
2	70	6-1/0 Cu/4-1/0 Al	10kA	THQL2170ST1
2	80	6-1/0 Cu/4-1/0 Al	10kA	THQL2180ST1
2	90	6-1/0 Cu/4-1/0 Al	10kA	THQL2190ST1
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQL21100ST1
3	20	14-8 Cu/12-8 Al	10kA	THQL32020ST1
3	30	14-8 Cu/12-8 Al	10kA	THQL32030ST1
3	40	8-3 Cu/8-3 Al	10kA	THQL32040ST1
3	50	8-3 Cu/8-3 Al	10kA	THQL32050ST1
3	60	8-3 Cu/8-3 Al	10kA	THQL32060ST1
3	70	6-1/0 Cu/4-1/0 Al	10kA	THQL32070ST1
3	80	6-1/0 Cu/4-1/0 Al	10kA	THQL32080ST1
3	90	6-1/0 Cu/4-1/0 Al	10kA	THQL32090ST1
3	100	6-1/0 Cu/4-1/0 Al	10kA	THQL32100ST1



THQL32020ST1

### THQL and THHQL Vac Arc Fault

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-10 Cu/14-10 Al	10kA	THQL1115AF2 <sup>2</sup>
1	20	14-10 Cu/14-10 Al	10kA	THQL1120AF2 <sup>2</sup>
1	15	14-10 Cu/14-10 Al	22kA	THHQL1115AF2 <sup>2</sup>
1	20	14-10 Cu/14-10 Al	22kA	THHQL1120AF2 <sup>2</sup>



THQL1115AF2

### Dual Function GFCI/AFCI Ground Fault & Combination Arc Fault Circuit Breaker

(Available December 2014)

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	10kA	THQL1115DF
1	20	14-8 Cu/12-8 Al	10kA	THQL1120DF
1	15	14-8 Cu/12-8 Al	22kA	THHQL1115DF
1	20	14-8 Cu/12-8 Al	22kA	THHQL1120DF

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>Combination AFCI compliant with NEC 2008 and later.

